



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,360	03/26/2004	Kenjiro Hori	03500.017985	7573

5514 7590 09/09/2005

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

HOANG, TU BA

ART UNIT PAPER NUMBER

3742

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Thl

Office Action Summary	Application No.		Applicant(s)	
	10/809,360		HORI, KENJIRO	
	Examiner		Art Unit	
	Tu Ba Hoang		3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05/03/04&05/04/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 10-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, there are insufficient antecedent bases for “the drive” recited at line 3 and “the start of the operation” recited at line 8 in the claim or from the preceding claim. Such “drive” and “operation” must be clearly defined (also note in claim 16).

In claim 10, the recitation of “a fixing device according to claim 9” at lines 1-2 renders the claim indefinite because claim 9 was directed to a heater drive circuit but not a fixing device. Such “fixing device” must be clearly defined.

In claim 11, there is insufficient antecedent basis for “said full-wave-rectifying means” recited at lines 8-9 in the claim.

In claim 17, there is insufficient antecedent basis for “said switching control means” recited at lines 4-5 in the claim or from the preceding claim.

In claim 19, the term “a heater drive circuit” recited at line 2 should be changed to “said heater drive circuit”. The recitation of “a heating heater” at line 4 renders the claim

Art Unit: 3742

indefinite because it is unclear if this heating heater was the same as the one recited at line 11 of claim 11. Thus, the latter "said heating heater" at line 8 lacks antecedent basis in the claim or from the preceding claim.

Similarly, in claim 20, "a fixing device" recited at lines 1-2 should be "said fixing device".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuo et al (US 6,930,293). Matsuo et al shows all features of the claimed invention including an image forming apparatus (Figures 1 and 15) comprising a fixing device 104 or 213 or 2113 having a heater 121 or 2114 driven by a heater drive circuit 102 or 2602 which comprises a current detector 129 or 2122 for detecting a value of a current across an AC power supply line 127 or 2112 that is supplied from an AC power supply 105 or from

Art Unit: 3742

points 2101, a full-wave rectifier 110 or 2104 for full-wave-rectifying an AC voltage on the AC power supply, a switching device 101 or 2111 for switching the full-wave rectified voltage from the rectifier at a high frequency, a voltage detector 120 or thermister 2115 for detecting a voltage applied to the heater (i.e., also the target voltage set for the setting circuit 2125), a heater control unit 103 for ON/OFF controlling the switching device on the basis of the current value detected by the current detector and the voltage value detected by the voltage detector, a filter 107, wherein the current detector is constructed of a current transformer as shown that is interposed in series in the AC power supply line and a rectification circuit 117,118 connected the the output winding of the transformer, the switching device includes a switching transistor 115,116 and a current retaining diode 117,118 connected to the switching transistor, a storage device or CPU 135.

Claims 1, 3, 9-11, 13, and 19-20 are rejected under 35 U.S.C. 102(a & e) as being anticipated by Kinouchi et al (US 6,868,249). Kinouchi et al shows all features of the claimed invention including an image forming apparatus (Figures 1-7, 10, and 15) comprising a fixing device having a heater driven by a heater drive circuit which comprises at least a current detector 53, a full-wave rectifier 110 for full-wave-rectifying an AC voltage on the AC power supply, a switching device 120 for switching the full-wave rectified voltage from the rectifier at a high frequency, a voltage detector 131 for detecting a voltage applied to the heater, a heater control unit 130 for ON/OFF controlling the switching device on the basis of the current value detected by the current

Art Unit: 3742


detector and the voltage value detected by the voltage detector, and a storage device shown in Figure 6.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kinouchi et al (US 2004/0179874).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Ba Hoang whose telephone number is (571) 272-4780. The examiner can normally be reached on Mon-fri from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu Ba Hoang
Primary Examiner
Art Unit 3742

September 06, 2005